



# Polycom® VSX™ 7000 Series

## Benefits

**Incredible audio** – New, patent-pending Polycom StereoSurround™ audio for unmatched audio clarity - in Stereo

**Outstanding video** – Premium quality video at any bandwidth with standards based H.264 and high resolution Pro-Motion™ video

**Flexible, easy to use interface** – Create a customised look and feel suitable for your organisation

**Enhanced features** – Integrated AES for secure calls, audio add-in for voice participants and continuous presence views in multipoint video calls

**Seamless audio and video communications** – Link a VSX 7000 with a SoundStation VTX 1000™ conference phone for seamless dialing and interaction. Only from Polycom

**The Polycom Solution** – Everything you need to deploy and manage a complete video conferencing network with Polycom Global Management System™, Polycom PathNavigator™, Polycom Conference Suite and the Polycom MGC™



## The world's most powerful set-top video conferencing system for small to medium groups and special applications.

The Polycom VSX 7000 series of products offer flexibility, reliability and a robust architecture for virtually any meeting room, classroom or small group environment. With a unique integrated sound system, the Polycom VSX 7000 series raises the bar for quality audio with patent pending Polycom StereoSurround audio. During a video conference, voices from far-end participants project in stereo. With dual speakers and dual microphones you'll hear each speaker clearly, easily decipher multiple simultaneous conversations and experience pure, rich sound.

In addition, each VSX 7000 series product offers truly exceptional video with H.264 and television-like quality Pro-Motion, an easy-to-use customisable user interface, standard AES software encryption, touch panel integration capabilities and voice add-on capabilities. To accommodate special applications, any of the VSX 7000 series products can be paired with the Polycom Media Centre for a complete cart and monitor solution.

The VSX 7800 is the top-of-the line for set-top video conferencing solutions. With the VSX 7800 you have everything needed to start collaborating – now! This solution includes a high fidelity speaker kit to accommodate Polycom StereoSurround, connectivity for a second display, People+Content™ feature for high resolution data sharing and an integrated multipoint feature to easily expand your conference to multiple locations.

Select the VSX 7400 for the optimum collaboration solution. Capabilities include support for high-resolution People+Content, a Web streaming utility for recording and viewing conferences at a later time and closed captioning support for hearing-impaired participants. What's more, the VSX 7400 model is available in an integrated package with the SoundStation VTX 1000, the world's first wideband conference phone. Link them together and use the VTX 1000 to add audio or video participants to a conference and to serve as the microphone for both audio and video calls. If you already have a VSX 7000 and a SoundStation VTX 1000 conference phone, you can combine the two into a single solution with our upgrade kit.

The VSX 7000 is ideal for high quality video conferencing with everything needed for productive, state-of-the-art communications. This base model provides flexibility and expandability in offering users the option to add additional displays, microphones, a speaker kit, network modules, multipoint features and more. Choose the VSX 7000 solution that's right for you.

### The value of Polycom VSX 7000 Series. The power of Polycom conferencing and collaboration solutions.

With integrated video, voice, data, and Web capabilities, only Polycom solutions let you connect, conference, and collaborate anytime, anywhere and any way you want. It's our commitment to making distance communications as natural and interactive as being there. Work faster, smarter, and more efficiently with Polycom VSX 7000 and other Polycom conferencing and collaboration solutions.



# Polycom VSX 7000 Series Specifications

ITU H.323 and H.320 compliant  
Cisco AVVID Certified

## Bandwidth

- Maximum Data Rate IP and Serial/V.35:  
Up to 2 Mbps
- Maximum Data Rate ISDN: Up to 2 Mbps

## Video Standards & Protocols

- H.261, Annex D
- H.263+ Annexes: F, I, J, L, N, T
- H.263++ Annexes: W
- H.264
- ITU 60-fps full screen – Pro-Motion™

## Frame Rates (Point-to-Point)

- Intelligently selects frame rate for best performance video
- 30 fps at 56 kbps up to 2 Mbps
- 60 fields per second up to 2 Mbps

## Video Inputs: Main Camera + 2 Connectors

- Integrated main camera
- 1 x S-Video; 4-pin mini DIN (Document camera, VCR or second camera)
- 1 x Composite; RCA/Phono (Document camera, VCR or second camera)

## RS-232 Data Port: 1 Connector

- 1 x 8-pin mini DIN
- Control port for custom integration with remote devices such as Crestron and AMX control systems
- Connectivity for closed captioning teletype device or PTZ control for auxiliary PowerCam™
- Communication port for transmission of serial data (i.e. medical devices) over ISDN calls

## Video Outputs: 5 Connectors

- 1 x S-Video; 4-pin mini DIN (Main monitor)
- 1 x Composite; RCA/Phono (Main monitor)
- 1 x S-Video (Second monitor)
- 1 x Composite; RCA/Phono (Second monitor)
- 1 x VGA (Second graphics display)

## Video Formats

- NTSC/PAL
- Graphics: XGA, SVGA, VGA

## Integrated Main Camera

- Ultra-quiet, ultra-fast action pan/tilt/zoom (PTZ)
- 65P field of view
- Tilt Range: +/- 25° (Up/Down)
- Pan Range: +/- 100° (Left/Right)
- Total Field of View: 265°
- 12x Zoom; f-4.2 to 42mm
- F=1.85 to 2.9 mm
- Auto focus
- Automatic white balance
- Camera presets - local and far-end (up to 99)
- Standards-based, far-end camera control (FECC)

## People Video Resolution

- Pro-Motion interlaced video (60/50 fields full-screen video for NTSC/PAL)
- 4SIF (704 x 480)
- 4CIF (704 x 576)
- SIF (352 x 240)
- CIF (352 x 288)
- Choice of 4:3 or 16:9 display aspect ratios
- Display People on VGA Second Monitor

## Content Video Resolution

- XGA (1024 x 768), SVGA (800 x 600), VGA (640 x 480) for graphic displays
- People video support for 4CIF and SIF on second VGA display
- Up to 4CIF for NTSC/PAL displays

## Audio Standards & Protocols

- Polycom StereoSurround ready
- 14 kHz bandwidth with Polycom Siren 14 audio on IP, ISDN, and IP/ISDN mixed calls
- 7 kHz bandwidth with G.722, G.722.1
- 3.4 kHz bandwidth with G.711, G.728, G.729A

## Audio Features

- Audio add-in over SoundStation VTX 1000™ conference phone
- Audio add-in over ISDN
- Full-duplex digital audio
- Instant Adaptation Echo Cancellation
- Automatic Gain Control (AGC) – Voice activated
- Automatic Noise Suppression (ANS)
- Audio Mixer (Mic, VCR, line-in)
- Built-in tonal speaker test
- Real-time audio level meter for local and far-end microphones
- Microphone and VCR input audio mixing
- Ability to talk over VCR audio
- Ability to turn off Echo Cancellation when external audio equipment is used

## Audio Inputs: 3 Connectors

- 1 x Conference Link
  - Supports up to (3) microphones
  - Supports SoundStation VTX 1000™ conference phone
- 1 x RCA input for stereo or mono input from VCR
- 1 x RCA input for stereo or mono input from external mixer

## Audio Outputs: 2 Connectors

- 2 x RCA for stereo VCR record (or stereo for auxiliary speakers or Vortex Installed Voice products)

## Polycom Digital Tabletop Microphone

- 360° voice pick up, 4.8 dB less reverberant than omni microphone
- Three cardioid elements per microphone
- Flotation feet reduce transmission of tabletop noise
- Integrated mute button
- Can be mounted to ceiling or walls

## Integrated Speaker and Subwoofer

- Frequency response: 80 Hz to 22 kHz
- Crossover frequency to subwoofer: 216 Hz
- Total Output Power: 20 Watts (RMS)
- Customise audio for user environment
- Master volume control
- Midrange and subwoofer speakers On/Off
- Subwoofer adjustable level
- User-tuned treble and bass controls

## Other ITU-Supported Standards

- H.221 communications
- H.224/H.281 far-end camera control
- Annex Q standard for FECC in H.323 calls
- H.225, H.245, H.239, H.241
- H.231 in multipoint calls
- H.243 MCU password
- H.233, H.234, H.235V3 encryption standards
- Bonding, Mode 1

## Network Interfaces Supported

- IP (LAN, DSL, cable modem)
- Single 10/100 Ethernet port (10 Mbps/100Mbps/Auto)
- Optional ISDN QBRI (Basic Rate Interface) Module T1/E1
- Optional Serial Module (V.35/RS-530/RS-449 with RS-366 dialing)
- Optional wireless LAN support via Ethernet port

## Network Features

- Integration with Cisco Systems' CallManager Version 4.0
- Automatic IP/ISDN calling
- Down speeding over IP and ISDN
- Audio & Video Error Concealment over IP, ISDN and mixed calls
- IP address conflict warning
- Fast Connect IP for quick video connections
- Maximum call length digital timer
- Auto SPID detection and line number configuration
- MGC™ Click&View™ for individual screen layouts
- Polycom OneDial™ intelligent call management attempts call on preferred network (IP or ISDN) and automatically rolls over to secondary network if needed
- Polycom PathNavigator support for easy call placement and network cost optimisation
- TCP/IP, DNS, WINS, DHCP, ARP, HTTP, FTP, Telnet
- Basic SIP\* (Session Initiation Protocol) implementation
- Chair control through API command or Integrated Web Interface.
- Software Upgradeable Inverse Multiplexer (IMUX)

## Internal Multipoint Features (Optional)

- Mixed protocol dialing connects a total of four endpoints (IP/ISDN/Serial) through the internal MCU
- Dial-in/Dial-out Calling (IP/ISDN/Serial)
- Password protection for incoming calls
- Supports IP telephones
- Automatic IP/ISDN down speeding
- Supports People+Content™ from any endpoint (Not just the host site)
- Voice Activated Switching - view current speaker
- Continuous Presence - see all locations
- Automatic Presentation - switch between presenter and continuous presence mode
- MP key installation while in a call
- Audio add-in over ISDN
- Cascading for up to 10 conference participants (mix of IP/ISDN/Serial Video and ISDN Audio)

## Conference on Demand

- Initiates unscheduled MGC calls from the endpoint
- Utilises Polycom Office™ (PathNavigator & MGC)
- Auto selects either the internal or external bridge
- Dials all participants simultaneously

## Security

- COMSEC tested by Titan Systems, Information Security Systems Division, and independently validated to operate with approved government encryption technologies
- KG-194/KIV-7 encryptor support with on screen and address book dialing
- Enhanced integration for independently certified, classified encryption devices
- Account validation number entry
- SNMP trap notification of all failed login attempts from HTTP, FTP or Telnet
- Secure password authentication
- Unique factory default passwords
- Administrator password
- Dial-in meeting password
- Encrypted password for VSX Web access
- Ability to disable remote interfaces (FTP, Telnet, HTTP, SNMP)
- Ability to disable mixed protocol multipoint calls
- Auto-Answer (On/Off)
- Allow access to user settings (On/Off)

## Embedded Encryption

- Advanced Encryption Standard (AES)
- FIPS validated by National Institute of Standards & Technology (NIST) certified agency
- 128-bit key length
- AES software encryption on ISDN, IP and Serial/V.35 up to 2 Mbps
- Standards-based H.235V3 (IP)
- Standards-based H.233/H.234 (ISDN/Serial)
- Automatic key generation and exchange
- Supported in People+Content™
- Supported in Point-to-Point IP & ISDN & mixed multipoint calls

## User Interface

- User-friendly graphical interface
- Customisable home screen and color themes
- Kiosk mode with scrolling marquee
- User-selectable camera icons and ring tones
- Speed Dial List on home page
- Persistent Preview (Far-site PIP) on all screens
- Picture In Picture (PIP) (On/Off, Moveable)
- Dual Monitor Emulation
- Numerical menu navigation (Similar to mobile phone)
- Date, Time Server accessibility
- Calendar and Conference scheduling
- Alert Signal on home page
- Do Not Disturb (On/Off)
- VSX Web for remote monitoring

## Directory Services

- 4,000 number global directory
- 1,000+ number local directory
- Limitless multipoint entries
- Live address book with Polycom Global Directory Services automatically and quickly updates directory with address changes or new endpoints
- Live address book with Polycom Global Directory Services automatically and quickly removes endpoints from directory if they are turned off
- Polycom Global Directory Services integrates with Active Directory/LDAP
- Directory Server backup in the event Polycom Global Directory is not accessible
- Automatic ISDN localisation of calls

## System Management

- SNMP for enterprise management
- Diagnostics and software upgrades via PC, LAN
- Integrated VSX Web management tool
- Web Director: Remote administrator video monitoring and control from VSX Web (enabled/disabled from endpoint for security)
- Out-of-box setup from VSX Web
- Place a call from VSX Web
- Language independence between set-top interface and VSX Web
- System configuration from VSX Web
- Recent Calls Log – Records last 99 incoming and outgoing calls
- Call Detail Record (CDR) - Reports all incoming and outgoing calls along with call statistics
- CDR Feature On/Off
- Downloadable CDR data for processing requires no external management system
- Account number validation at call initiation integrated with Polycom Global Management System for billing purposes
- Administrator-configurable dialing speeds
- Complete support for The Polycom Office™ including:
  - Polycom Global Management System
  - Polycom OneDial
  - Polycom PathNavigator
  - Polycom Conference Suite
  - Polycom MGC

- Polycom SoundStation VTX 1000™
- Polycom Vortex®

## Quality of Service and Experience – iPriority™

- Video Error Concealment
- Audio Error Concealment
- Universal Plug and Play (UPnP)
- IP Precedence (ToS)
- DiffServ (DSCP) (COS)
- Dynamic Bandwidth Allocation
- Proactive Network Monitoring
- Packet and jitter control
- Network Address Translation (NAT) support
- Automatic NAT discovery
- Configurable video/audio/FECC service value
- Asymmetric speed control
- Alternate Gatekeeper Support
- TCP/UDP fixed-port firewall support
- Lip synchronisation
- Echo cancellation
- Echo suppression
- Auto gatekeeper discovery
- Automatic gateway dialing profiles
- Specify outbound call routing for gateway/ISDN

## Collaboration Solutions

- Visual Concert™ VSX (Audio and video input from PC or Macintosh®) (Optional)
  - 1 x audio input for laptop
  - 1 x VGA output for projector
  - 3 x 10/100 Ethernet hub
  - Content Input: 1280 x 1024, 60 Hz
  - Content Output: Up to 1024 x 768
- Closed captioning support
- Web Streaming in and out of a call, RTP based, suitable with QuickTime Players

## Language Support (12 languages)

- Chinese (Simplified), Chinese (Traditional), English, French, German, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish
  - Documentation translations in all languages
  - User interface translations in all languages
  - Keypad audio dialing confirmation in all languages
  - VSX Web translations in all languages
  - Remote controls labeled in all languages

## VSX 7800 Includes

- VSX 7000 system
- Internal Multipoint Software License
- Additional Display Adapter Kit
- (2) Digital Tabletop Microphones
- Visual Concert™ VSX
- Stereo Speaker Kit

## VSX 7400 Includes

- VSX 7000 system
- Additional Display Adapter Kit
- Visual Concert VSX

## Electrical

- Auto sensing power supply
- Operating voltage/power 90-260 VAC, 47-63 Hz/80 watts

## Environmental Specifications

- Operating Temperature: 0-40° C
- Operating Humidity: 15-80%
- Non-Operating Temperature: -40-700° C
- Non-Operating Humidity (Non-condensing): 10-90%

## Physical Characteristics

- Video Base Unit : 300.3mm x 148mm x 244.5mm (11.82" x 5.83" x 9.63") (W/H/D)

- Video Base Unit Weight: 2.8 kg (6.0 lbs)
- Subwoofer: 175.2mm x 272.4mm x 220mm (6.9" x 10.72" x 8.67") (W/H/D)
- Subwoofer Weight: 4.08 kg (9.0 lbs)

## Warranty

- One-year return to factory parts and labour
- One-year software updates and upgrades

\* SIP video extensions are in the process of being standards ratified.

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